AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/751357

Filing Date: December 29, 2000

Title: SEAMLESS REAR PROJECTION SCREEN

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In the Claims

Please amend the claims as follows:

1. (Canceled)

2. (Currently amended) A projection screen for displaying an image from an image source,

the screen comprising:

a first diffusing assembly including a pre-screen comprising a plurality of seamlessly

tiled optical faceplates of fibrous crystal tiled without a visible seam; and

a second diffusing assembly comprising a diffused rear projection screen, the faceplate

being positioned to receive an image from the image source and to further diffuse said image.

3. (Previously presented) The screen of claim 2 further including an anti-reflection coating

on a viewing side of said projection screen.

4. (Previously presented) The screen of claim 2 wherein the optical faceplate is made from

fibrous crystals selected from the group consisting of crystals not found in nature, and crystals

not found in nature in fibrous form.

5. (Previously presented) The screen of claim 2 wherein the optical faceplate is made from

crystals selected from the group consisting of artificially grown crystals and synthesized crystals

which do not exist in nature.

6. (Previously presented) The screen of claim 2 wherein the optical faceplate is made from

a material having fibrous crystals which are transparent, colorless, work as a coherent faceplate,

and comprise fibers having a numeric aperture of about 0.2.

7. (Original) The screen of claim 6 wherein the material is selected from the group

consisting of Ulexite, Selenite, Artinite and Aragonite.

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8. (Original) The screen of claim 6 wherein the optical faceplate is made of lab-grown Ulexite (NaCaB5O9 8H20).

- 9-32. (Canceled)
- 33. (Currently amended) The screen of claim-32\_2 wherein the fibrous crystal has a fiber size on a scale of nanometers.
- 34. (Currently amended) The screen of claim-32 wherein the fibrous crystal has a pitch significantly less than that of glass.
- 35. (Previously presented) The screen of claim 2 wherein the fibrous crystal includes a dopant.
- 36. (Previously presented) The screen of claim 2 wherein the Ulexite is recrystallized natural Ulexite.
- 37. (Currently amended) A projection system for displaying an image, comprising: a first diffusing assembly including a pre-screen comprising a plurality of seamlessly tiled optical faceplates of fibrous crystal tiled without a visible seam;
- a second diffusing assembly comprising a diffused rear projection screen, the faceplate being positioned to receive an image from the image source and to further diffuse said image; and

an image source for transmitting an image to the tiled optical faceplates.

- 38. (Previously presented) The system of claim 37 wherein the image source is positioned so as to transmit the image directly to the plurality of tiled optical faceplates.
- 39. (Previously presented) The system of claim 37 wherein the image source includes a plurality of overlapping light sources.

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40. (Previously presented) The system of claim 37 wherein the image source includes a device selected from the group consisting of image intensifiers, field flatteners, liquid crystal light valves (LCLVs), CCD arrays, X-ray imaging devices, CRT displays, and remote viewers.

- 41. (Previously presented) The system of claim 37 wherein the image source includes a collimated light source.
- 42. (Canceled)
- 43. (Currently amended) The system of claim-42\_37 wherein the fibrous crystal has a fiber size on a scale of nanometers.
- 44. (Currently amended) The system of claim-42 37 wherein the fibrous crystal has a pitch significantly less than that of glass.
- 45. (New) A projection screen for displaying an image from an image source, the screen comprising:
- a first diffusing assembly including a pre-screen comprising a plurality of tiled optical faceplates of fibrous crystal; and
- a second diffusing assembly comprising a diffused rear projection screen, the faceplate being positioned to receive an image from the image source and to further diffuse said image.
- 46. (New) The screen of claim 45 wherein the optical faceplate is made from a material, having fibrous crystals which are transparent, colorless, work as a coherent faceplate, and comprise fibers having a numeric aperture of about 0.2.
- 47. (New) The screen of claim 46 wherein the material is selected from the group consisting of Selenite, Artinite and Aragonite.

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- 48. (New) The screen of claim 46 wherein the optical faceplate is made of lab-grown Ulexite (NaCaB5O9 8H20).
- 49. (New) The screen of claim 48 where the optical faceplate is doped so as to change its optical properties.
- 50. (New) The screen of claim 48 where the optical faceplate has a gradient of properties along a vertical axis thereof.
- 51. (New) The screen of claim 50 where the optical faceplate is layered.
- 52. (New) The screen of claim 50 where the optical faceplate has a steep change of properties along a vertical axis thereof.
- 53. (New) A projection system for displaying an image, comprising:
- a first diffusing assembly including a pre-screen comprising a plurality of tiled optical faceplates of fibrous crystal;
- a second diffusing assembly comprising a diffused rear projection screen, the faceplate being positioned to receive an image from the image source and to further diffuse said image; and

an image source for transmitting an image to the tiled optical faceplates.

- 54. (New) The system of claim 53 wherein the fibrous crystal has a fiber size on a scale of nanometers.
- 55. (New) The system of claim 53 wherein the fibrous crystal has a pitch significantly less than that of glass.